

AMENDMENTS TO THE CLAIMS

1-200. Canceled

201. (Currently Amended) An expandable reaming tool, comprising:
at least two reamer pads operatively coupled to a tool body and configured to be displaced between a retracted position and an expanded position;
at least one spiral blade formed on at least one of the at least two reamer pads;
a plurality of cutting elements disposed on the at least one spiral blade,
wherein the plurality of cutting elements are arranged so as to substantially balance at least one parameter selected from axial force, lateral force, work, and mass between the at least two reamer pads,
wherein the expandable reaming tool is configured to ream while drilling.
202. (Previously Presented) The expandable reaming tool of claim 201, wherein the plurality of cutting elements comprise at least one of polycrystalline diamond inserts, tungsten carbide inserts, and boron nitride inserts.
203. (Currently Amended) The expandable reaming tool of claim 201, further comprising at least one gage protection element disposed on a gage surface of the at least one spiral blade.
204. (Previously Presented) The expandable reaming tool of claim 203, wherein the at least one gage protection element comprises at least one of a thermally stabilized polycrystalline insert and a polycrystalline diamond insert.
205. (Currently Amended) The expandable reaming tool of claim 201, further comprising a vibration damping insert disposed on the at least one spiral blade.
206. (Previously Presented) The expandable reaming tool of claim 201, wherein the at least two reamer pads and the plurality of cutting elements are arranged to backream a formation in a wellbore.

207. (Previously Presented) The expandable reaming tool of claim 201, wherein the plurality of cutting elements are arranged to form a tapered cutting structure.

208. (Previously Presented) The expandable reaming tool of claim 201, wherein the plurality of cutting elements have backrake angles of greater than 20 degrees.

209. (Previously Presented) The expandable reaming tool of claim 201, wherein selected ones of the plurality of cutting elements have different backrake angles than other ones of the plurality of cutting elements.

210. (Previously Presented) The expandable reaming tool of claim 201, wherein each of the plurality of cutting elements has a diameter of less than 13.0 mm or greater than 13.0 mm.

211. (Previously Presented) The expandable reaming tool of claim 201, wherein selected ones of the plurality of cutting elements disposed on one of the at least two reamer pads are positioned so as to form a redundant cutting arrangement with other selected ones of the plurality of cutting elements disposed on a different one of the at least two reamer pads.

212. (Previously Presented) The expandable reaming tool of claim 201, wherein the at least two reamer pads and the plurality of cutting elements are configured to substantially mass balance the expandable reaming tool about an axis of rotation of the reaming tool.

213. (Currently Amended) The expandable reaming tool of claim 201, wherein the at least two reamer pads and the at least one spiral blade are formed from a non-magnetic material.

214. (Currently Amended) The expandable reaming tool of claim 201, wherein the at least two reamer pads and the at least one spiral blade are formed from a matrix material infiltrated with a binder alloy.

215. (Currently Amended) The expandable reaming tool of claim 201, wherein surfaces of the at least one spiral blade proximate the plurality of cutting elements are shaped so that a cutting element exposure is equal to at least half of a diameter of the cutting element.

216. (Currently Amended) The expandable reaming tool of claim 201, wherein a perpendicular distance measured from a surface of the at least two reamer pads to an outermost extent of a gage cutting element disposed on the at least one spiral blade is equal to at least twice a diameter of the gage cutting element.

217. (Currently Amended) The expandable reaming tool of claim 201, wherein a gage surface of the at least one spiral blade comprises a hardfacing material.

218. (Currently Amended) The expandable reaming tool of claim 201, wherein a gage surface of the at least one spiral blade is formed from a diamond impregnated material.